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AUDIOVISUAL TECHNOLOGY: MOTIVATOR OR ENTERTAINER?

by

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B. S. Kansas State University, 1972

613-8301

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

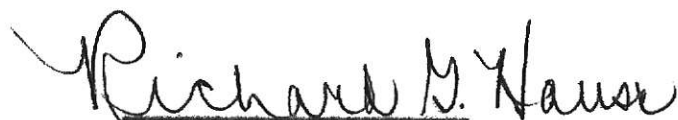
MASTER OF SCIENCE

College of Education

**KANSAS STATE UNIVERSITY
Manhattan, Kansas**

1973

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INTRODUCTION

My task which I am trying to achieve is, by the power of the written word to make you hear, to make you feel--it is, before all, to make you see. That--and no more, and it is everything. If I succeed, you shall find there according to your deserts: encouragement, consolation, fear, charm--all you demand--and, perhaps, also that glimpse of truth for which you have forgotten to ask.

Joseph Conrad in Preface to
The Nigger of the Narcissus

Joseph Conrad knew the importance of total involvement of the reader. With only the written word, his task was a difficult one. How he would exclaim over the media available to teachers today!

Eckhardt (1973, p. 48) has described mass media as the whole electronic birdbath, from McLuhan's lightbulbs, lasers and computers through radio, television, film and records, to all the little goodies on Mission Impossible. In short, the whole I-don't-have-any-more-orifices-left-on-my-body-to-plug-this-thing-into trip.

With all of this technology available, why is there a cry for "relevance" by the students? Why do the teachers complain of a lack of motivation for effective learning in the classroom? When both the teacher and the student longingly wait for the three o'clock bell to release them from the four classroom walls to media that brings exotic lands, play-by-play sports events, interviews with famous people, or music to fit a mood--then something is missing from the curriculum.

The decision to turn toward media is practically inborn. As stated by Goldman and Burnett (1971, p. 73) the United States Office of Education in 1970 found that "pre-school children spend 54 hours a week watching television." The generation now in school has never known the absence of television, stereos, and elaborate recording systems. Marshall McLuhan (1970, p. 64) in Culture is Our Business explains the feelings of the youth. "Gray at three," he states, "they have witnessed adult violence and confusion in every part of the world. At the age of six, they are met with texts and tests, 'See Dick run, See Jane jump . . .' And they drop out."

STATEMENT OF PROBLEM

Teachers tend to shy away from audiovisual materials insisting that it is more economical to learn by authority. (Torrance, 1970, p. 1) The majority of teachers are probably willing to use more effective teaching methods. Can it be statistically proven that audiovisual materials are motivational tools toward more effective learning rather than just a "film every Friday" event? What are the benefits for the teacher? What are the benefits for the student?

STATEMENT OF HYPOTHESIS

A. Audiovisual materials when a part of behavioral objectives will have a positive (motivational) effect on senior high language arts courses.

B. Audiovisual materials when a part of behavioral objectives will have a negative effect in senior high language arts courses.

C. Audiovisual materials when a part of behavioral objectives will have no effect in senior high language arts courses.

RATIONALE FOR HYPOTHESIS

It is my belief that a search through literature of the past four years will show Hypothesis A to be true. My rationale for this statement is based on the opinion that many students have been turned off by the constant threat of failure. Those who cannot or do not want to play the "memory" game turn to areas where they can be successful. For many, these areas may be destructive. Audiovisual materials, especially those involving student production, can be a means of self-expression. Goldman and Burnett (1971, p. 32) state that "possibly 18.5 million Americans over the age of 16 are functionally illiterate." This does not mean that sign language is to be encouraged over the printed page. By learning to develop a capacity to select and respond to mass media around them, the student can successfully select and respond to the printed page. Without the use of appropriate audiovisual materials, thousands more will join the "functionally illiterate."

OPERATIONAL DEFINITIONS

A behavioral objective is "a description of a pattern of behavior (performance) we want the learner to be able to communicate," as stated by Mager (1962, p. 3).

Audiovisual material is a broad term to include "improved devices and techniques for bringing the best, the most relevant, and the widest range of experiences to students." (Kemp, 1968, p. 5)

Motivation is the "condition produced by external or internal needs, which energizes, selects, and directs the learning of an individual." (Seila, 1972, p. 197)

Language arts refers to a wide range of activities related to literature and composition but not restricted to them. It involves all forms of self-expression.

SIGNIFICANCE OF STUDY

Teachers are no longer the primary source of information. Learning takes place in all areas of life, not just in the classroom. Teachers must learn to work with media, not against it. Technology and mass media are not fads. Their success has proved that the printed page will no longer start revolutions. The study and use of media in the classroom can combat the indiscriminate use of media that envelopes the world. Motivation is a key to a successful school career and to a successful life. Audio-visual materials may provide the answer to motivation needs for many students. This study will provide a review of

statistical research intended to aid the teacher when selecting appropriate media for the classroom.

REVIEW OF STUDIES EVALUATING PROJECTED VISUALS

Televised instruction. For many schools the dream of televised instruction has become a reality. But as with most dreams, the value may be out of proportion. Allen (1968) found no significant differences in measured performance between students who were instructed over television and those taught directly. Allen stated that ~~form~~ many schools televised instruction has economic advantages of offering courses not available otherwise. Special speakers could be utilized without extra expense.

Many factors considered by some to be problems in televised instruction did not relate significantly to learning in this study. This included size of group, screen viewing angle, distance from screen, and size of screen.

Dwyer (1972, pp. 35-48) devised a three year study to determine which types of televised visual illustrations are most effective for promoting student achievement. In this study college students were divided into control and treatment groups according to which of the sessions they could attend. The experimental treatments were assigned at random. The control group received an oral presentation of the heart without visuals. The visualized treatments were the simple line presentation, the detailed drawing presentation, the heart model presentation, and the realistic photograph presentation.

It was found that the use of visualizations to aid in oral presentations was not an effective means of improving achievement of all types of educational objectives. The most effective visual illustration for achievement of a specific educational objective depends on the type of information needed by the student to achieve that objective. The simple line drawing gave the needed information rapidly. The model and realistic photograph tended to detract from the oral presentation. The detailed drawing contained information in excess to the amount of study time given.

In a second study (Dwyer, 1972, p. 38) increase in size of visual presentation did not improve effectiveness. A possible explanation for this was that "the increased size of the visual images produced a larger viewing area which required the students to spend more time searching for the relevant visual information being discussed orally."

In the third study (Dwyer, p. 40) television was used to investigate the instructional effectiveness of motion in visual illustrations. It was hypothesized that motion in visual illustrations would direct the students' attention and thus improve visual effectiveness. Slide/tape presentations were developed for television using the four types of presentations listed above.

In this study students who viewed the presentation with visuals achieved significantly higher scores on a comprehension test than did students who received only the oral presentation. The simple line presentation was found to be the most effective. The use of motion tended to hinder

effectiveness of the more complicated and realistic visuals.

In the last study (Dwyer, p. 42) television was used to determine the effectiveness of different types of visuals when questions preceded each visual illustration. The same five instructional treatments were used. Two important generalizations were made from this study. Dwyer found that the use of questions to direct attention on the more realistic visual displays was not an effective method for increasing students' achievement. But the use of questions to complement simple line illustrations was an effective technique for increasing student achievement.

In a study by David (1969) at Michigan State University, the overall distribution of grades for students who saw lectures live was not significantly different from those who saw the lectures on television.

Structured interviews were held with randomly selected students. A course-by-course inspection revealed that student attitudes in television sections were highly dependent upon the quality of the lecturer and the type of course being offered. Nearly all (90%) were willing to take additional television courses.

Motion pictures. Everote (1969, p. 88) quotes Thomas Edison as stating, "It is impossible to fascinate young minds with dull textbooks. I believe that the motion picture is destined to revolutionize our entire educational future . . . it will supplant the use of textbooks in our schools." Edison's first Kinetoscope was introduced in 1894.

Lacy (1972, p. 53) advocates the use of film to help young people

learn how to learn, how to respond sensitively and effectively to others, how to clarify their sense of who they are, and how to develop capacities to choose freely from a variety of alternatives--all in relation and response to the screen.

Learning "how to learn" with the aid of films was found to be a more effective method for students with a low IQ than those with a high IQ by Wittich and Fowlkes (1946, p. 66). One explanation given was that students with high IQ's were not sufficiently motivated, whereas students with low IQ's found novelty in the situation and freedom from inadequacies found in their reading habits. In viewing films, these students showed that they could be superior observers.

When both IQ groups were prepared for the film in advance, comparable gains were found. This indicated that pupils with high IQ's were not restrained from effective learning by films.

However in a later experiment quoted by Russell (1970) the opposite proved true. Persons of high IQ usually learned more from films than those of medium or low IQ. However, in some cases those of lower intelligence appeared to make a greater gain in learning, but not enough to surpass the learning of the superior students.

In need johnny read? Goldman and Burnett found that an increasing number of students displayed a lack of proficiency and a lack of interest in print-reading and

writing. These authors advocated the use of film and film study to alleviate the dilemma of dropouts.

A two year project by Hodgkinson (1970) did just as Goldman and Burnett recommended. Four different kinds of screen education courses were taught and evaluated. In general, tests showed that of the 419 high school students who self-elected to take the courses, they were significantly less than average in intellectual and academic ability and in those areas of self-knowledge that relate to performance and achievement.

The classes were evaluated by student questionnaires, classroom observations, student interviews, and a student self-assessment system. The results showed an increase of the students' basic skills in communication areas and more discriminating powers in visual and aural perceptions. Self-awareness was also significantly improved.

Slides. As found in televised visuals, the simple line drawing was the most effective learning technique for slides. Moore and Sasse (1971) studied the effect of size and type of projected slide image on immediate recall of the content. Slides of simple line drawings, detailed, shaded drawings, and photographs were used. Two hundred and twenty-eight subjects of average mental ability participated. Line drawings at all sizes produced the highest mean scores for the 3rd, 7th, and 11th grade students. Photographs at all sizes had the lowest mean score. The medium size picture of each type of slide produced the highest mean score within

that type. The small size pictures produced the lowest mean score.

Dwyer (1972, p. 23) worked with 1,054 students in grades 9, 10, 11, and 12. As in the above study, the simplest production was the most effective in the 9th, 10th, and 11th grade level. The oral presentation without visuals was found to be as effective on the comprehension tests. For the 12th grade students, the detailed, shaded drawing presentation was most effective. Oral presentation without visuals was more effective than the other two types of visuals.

A Visual Illustration Questionnaire (Dwyer, p. 32) was given to college students after completing a study similar to the above. The results indicated that students believed that detailed, colored drawings and colored model illustrations were preferred over black and white. Visual aids were considered to be an asset. They also felt that realistic illustrations presented too much information to be learned adequately.

In comparing the student evaluations with the actual results of the comprehension tests, it was suggested that student attitudes toward instructional media are probably not a valid indication of their instructional value. For example in many tests, oral presentation without visuals was as effective as the simple line presentation and more effective than the detailed drawing, model, or photograph.

Motion versus non-motion. One study (Houser and Adrian, 1970) compared the effectiveness of a motion picture versus a slide presentation in learning a motion and a non-motion concept. It was found that where motion is a defining attribute of a concept it is better to present that concept using motion picture. Motion picture was also found to be superior to slides when a non-motion concept was learned.

Taped instruction. Taped instruction was found to have a positive effect on problem-solving skills of 7th grade students by Sekyru (1970). He also found a positive relationship between increased amount of exposure to taped instruction and problem-solving ability. No assumptions were made regarding the long term effects of taped instruction in aiding problem solving.

A limited study by Galfo (1970) compared the effectiveness of slide-tape presentations to presentations where sight and sound are presented separately. Forty-four junior high students were randomly selected from high (117+), average (90-110), and low (85 and lower) intelligence. Although earlier research stated that auditory presentations presented simultaneously with visual object presentation would cause confusion, this study found audio-visual presentations superior to sight-sound separation.

Graphic presentation. The following results were from a study by Gloria Feliciano (1968) included in "Readings in Educational Media Theory and Research," edited by William

Allen. This study concerned the effectiveness of various forms or methods of presenting statistical information.

Feliciano found that :

1. Horizontal bar graphs produced significantly better scores than did long tables, short tables, or text by itself.

2. Using horizontal grouped bar graphs to reinforce the text gave significantly higher scores than did the use of short tables or long tables.

3. No significant difference in scores was found when text reinforced with short tables was compared to text reinforced with long tables. Both kinds of reinforcement were more effective than text alone.

4. Horizontal grouped bar graphs, even without textual reinforcement, resulted in better scores than the long tables with textual reinforcement.

In the above study 1080 test subjects were used. The subjects included high school students in Wisconsin, students in the Agriculture College of University of Philippines, and adult women in homemakers clubs in Wisconsin.

Audiovisual research and teacher behavior. Overhead projectors can affect the classroom verbal behavior of both teachers and students. Cabeceiras (1972) used the Flanders System of Interaction Analysis in his recent study involving 20 6th grade teachers with experience from one half year to thirty-eight years. Before this study all had expressed a favorable attitude towards audiovisual equipment. The classes were observed for four twenty minute periods. Identical audiovisual equipment and materials were made available to each teacher.

The results showed that teachers were much more indirect in using their influence without using any additional time to control students or to give directions when using the overhead projector. The students were allowed to do more of the talking with more of the students' ideas being accepted by the teachers. Less time was spent in lecturing and more time in praise and encouraging the student. Teachers avoided redundancy when the projector contained the information. It was generalized that the overhead projector may well be an instructional tool that improves the performance of both teacher and student.

Of interest to college professors who teach methods courses is a study by Smith (1972). The study was to determine whether college students who were exposed to many audiovisual experiences in their methods courses would use more in the first year of teaching than those students who had fewer audiovisual experiences. Twenty elementary social studies methods instructors at fourteen state colleges in Pennsylvania were interviewed and divided into two groups depending on the frequency of audiovisual use.

Two hundred and fifty or the 286 former students replied to questionnaires sent to them. The conclusion of the limited experiment was that the frequency with which beginning teachers use audiovisual materials in social studies is influenced by the media experience they had in the college course. The study was limited as only social study teachers were involved and the quality of audiovisual experience could not be controlled.

SPECIFIC CONCLUSIONS

The conclusions drawn from the data should be of significant interest to teachers for improvement in selection and preparation of audiovisual materials for classroom instruction.

1. Audiovisual materials do not guarantee improvement in student ability or teacher ability. It is dependent upon many factors.

2. Elaborate equipment is not needed for successful televised instruction. The benefits of this type of instruction are dependent upon the subject taught and the instructor.

3. Artistic talent and expensive materials are not related to improved learning conditions. Simple line drawings used to complement lectures are most effective in many instances.

4. Questions used to direct student learning are more effective than many audiovisual materials.

5. When students are prepared in advance, films may be an effective learning device.

6. Motion pictures are superior to slides in learning both motion and non-motion concepts.

7. Simple black and white slides are more effective than detailed, colored, or photograph slides in many instances.

8. Color does not guarantee improvement in the instructional value of audiovisual materials.

9. An increase in size of audiovisual presentations does not increase instructional value.

10. Student preferences are important considerations but are not valid indicators of instructional value.

11. Audiovisual presentations are superior to sight-sound separation.

12. Horizontal bar graphs are a better learning tool than long tables, short tables, or text alone. All types of graphs with text were superior to text by itself.

13. Teachers become more receptive to students' ideas when using some audiovisual materials.

14. The same visuals are not equally effective in increasing achievement for all grade levels.

15. If student teachers are exposed to meaningful audiovisual materials in their learning experiences, they tend to use audiovisual materials more in their classrooms.

DISCUSSION OF HYPOTHESES

Based on the research presented, Hypothesis A can not be verified unless the behavioral objectives for each learning experience which utilized audiovisual materials are clearly defined. In each area of research some form of audiovisual material was superior to the lecture method of teaching. However, this success was dependent upon its proper use in the classroom. This involves adequate teacher and student preparation. It can not simply be assumed that audiovisual materials will have a positive (motivational) effect on language arts students. The

survey of research showed that if the wrong type of audio--visual materials were used, the student was hindered in his learning.

However, it can be derived from the research that audiovisual materials have a high degree of interest for the students. Audiovisual materials may be a novelty to attract immediate attention. Students may become involved in the manipulative concepts of audiovisual materials. This was found especially true for students who repeatedly fail written assignments but find in audiovisual materials, a channel for success.

Audiovisual materials also provide experiences which might not otherwise be obtained. These materials are more economical than speakers, field trips, and new texts.

Another supportive factor to Hypothesis A is that audiovisual materials tend to produce a positive effect on the teachers which will in turn have a positive effect on the students. If audiovisual materials can turn a lecture type teaching method into one which allows more student interaction and more acceptance by teachers of student ideas, then this topic is certainly worthy of further research!

In support of Hypothesis B, research has shown that audiovisual materials can have a negative effect on students in language arts courses. Materials which are not suited to the level of the student, inappropriate to the unit of study, or contain excess and confusing information will hinder the learning experience. Materials which are hastily or inaccurately prepared by the teacher may cause confusion for the learner.

Audiovisual materials may also produce a negative effect when used in place of the teacher rather than as an aid to the teacher. Humans need human response. The machine can aid and motivate the student under the guidance of a teacher.

In some areas, audiovisual materials had no effect in senior high language arts courses as stated in Hypothesis C. In some instances the oral lecture with questions to guide study were more beneficial than pictures used to enhance learning.

Each of the three hypotheses have some validity in them when related to specific instances. In each reference cited and in the examples to follow, the success or failure of the learning experience is dependent upon the teacher, the student, and the audiovisual material involved. Characteristics of all three variables must be considered.

CREATIVE APPLICATIONS OF STATISTICAL DATA

"Education" according to Wartenberg (1960), is a process in which pupils, teachers, and the curriculum interact." Paul Torrance (1970) stresses creativity in the classroom through problem solving activities. What better way for students and teachers to interact creatively with the curriculum than in the production and use of audiovisual materials!

Television. When the English teacher finds himself a hypocrite to his own profession; that is, he thoroughly enjoys watching TV and finds the New York Times more interesting than Ivanhoe, then it is time to tune in to television in the classroom.

Robert Meadows (1967) developed a six step activity for dynamic television viewing:

Step 1. Committee Selection--The class is divided into five member committees each of which selects a specific show with a consistent cast.

Step 2. Observation--Each committee member selects a character for careful study.

Step 3. Script Writing--Based on a simple plot a script is written for the studied characters.

Step 4. Rehearsal--Casting of parts for all.

Step 5. Production--Performed for class and videotaped for later viewing.

Step 6. Evaluation--Emphasis on process rather than product.

If journalism and speech are "dead," try replacing them with "television." Balazo (1970) reports that with only the bare necessities the class presented live news three times each lunch hour. This instantly became one of the most sought-after classes. The potential for this medium was limitless. It was used to report student-faculty meetings, interviews, classroom visitation, and for parent-teacher meetings. TV journalism became alive.

Katz (1969) claimed that he turned many wasted hours of television watching by his eighth grade students into reading, writing, and critical thinking. He believed that more was gained this way than from a year of normal study.

Each member of this class read two books on media, read professional scripts, and wrote several original ones. Critical evaluations were made of television shows and commercials. The final step was to produce a movie or a slide show.

This class was an experiment for one year trial only. These students were followed for a year after leaving this atmosphere. The students reported that they adapted better to other classes. The teachers stated that these students were more active in discussions and their reading and writing abilities were sharpened.

Postman (1961) in Television and the Teaching of English, states that students must be literate in all media. He encourages student selective watching by forming a student television committee to recommend and review programs. TV specials were announced on attractive bulletin boards. In this book, he also outlines a detailed unit on teaching television.

Cameras and film. As stated by Marshall McLuhan (1964, p. 1.), "Some stutterers lose their stutter when they switch to a foreign language." This may have proved true in a special education class when Eastman Kodak Company provided Super 8mm cameras and film to improve student motivation and involvement.

Arney (1968) reported that "personalized" films were made of the special education class trips. The students made better social adjustments when their actions were filmed for future showing. The films were used as teaching tools to prepare other students for the same trip. The films were also shown in parent-teacher conferences and to future special education teachers. In this Cedar Rapids school the non-handicapped students became interested in the cameras.

Because of the economical cost (\$5 total investment for a 50 foot role of Super 8mm color film and development) and easy storage, other classes began to incorporate film study and use into their curriculums.

Another experimental class was taught by Scheufele (1969) in Salinas, California. Two classes of slow students showed an excess of absences and tardies until a film club was formed. Interest in this class was high and attendance improved due to class pressure as scripts were written, directed, acted, and filmed by groups within the class. Another benefit to the film club was that these slow students were recognized by other students for their creative talents.

Mlynarczyh (1963) reports of thirty inner-city teenagers from New York who had rebelled against school. An organization called AIM (Achievement in Media) began for these young people with a \$1,000 grant. With the cameras provided, these students learned that they could comprehend the city life around them and communicate these feelings to others. In March the Group's first book, Inner City Reflections in Black and White will be published by Washington Square Press. This begins AIM's fourth year of action.

Brandon (1971) combined writing and photography in her English assignments. For example, each student photographed one object in six different ways then was asked to describe something as if by six different persons.

Old films were re-edited to produce a new effect. For a writing assignment, printed news, ads, or stories were edited or combined to produce a new effect.

Schools can have their budget and camera too as Power Sales Company, Willow Grove, Pa. 19090, offers the Diana Camera with flash system for only 87¢. Film is available at the wholesale price of 35¢ per roll. This should be within the price range of many students and most schools. Enclosed with the order blank is an article by Alan Oddie, "Shoestring Photography," reprinted from Religion Teacher's Journal, April 1972, pp. 32-35. Included in this article are ideas for selecting subjects and camera settings. A step-by-step procedure for developing the film and printing negatives concludes the article.

Slide/tape. When handled properly, slide/tape productions can be a challenge to the imaginative producer. At Portland State University a simultaneous display of subjects from three different camera angles and distances was used by Kuo (1972) to introduce freshmen to the library. He has also used three screens to present different time segments of an event. A side-by-side comparison of contradictory moods or actions has also used this method of presentation. This set-up may be used to reinforce a particular concept by showing several similar visuals. This is not a task for the beginner as all slide projectors must be synchronized with the tape recorder or sound track. If not careful, it could look like a "three-ring circus" instead of a reinforcing visual experience.

Cushman (1973) took a "step back" in technology. Using tape recorders, students produced "old radio" shows after studying the techniques used to hold audience attention and to convey the message verbally. In the script writing, students had to make the audience "see" the action through words and sound effects.

Children from an inner-city school in Kansas City, Missouri could not understand the concept of brotherly love. The deteriorating effect of their own neighborhood combined with extreme reading problems made it impossible for the teacher to explain such a term. Smith and Elmore (1971) explain how the use of a slide/tape presentation solved this problem. The students chose pictures from magazines to show what brotherly love meant to them. This was followed by a discussion of the differences in selection. A Kodak Ektagraphic Visualmaker was used to make slides from the pictures. A script was written to explain the slides. The script was taped and synchronized with the slides. It was reported that almost all of the students were "vitally interested."

Zaslavsky felt his success with slide/tape presentations was due to student involvement with the equipment. Information was recorded on slides with an audio tape for both those who needed review and those who were advanced. This is one method of individualized study.

Another method of individualizing is credited to FitzPartich (1968) who discussed each student's paper by means of a tape recorder. As the student listened to the

tape, he followed page by page in his paper. FitzPatrick felt that the students received more personal attention due to the fact that she could point out specific problems without hours of writing. The tone of the comments could be more effectively suited to the individual student. Through voice inflection the teacher could express praise or disappointment in the work.

Forty-five seniors in English participated in the above experiment. Twenty-five of the students preferred the tape critique. Sixteen preferred the written evaluation so that they could review the comments later. Four were undecided.

Spontaneous media. Woe to the teacher who admonishes students to keep their noses in the books while history is being made outside the door. Graves (1972) used a forest fire above his Southern California high school to inspire creative writing. The papers were vivid and precise. Two weeks later papers were written on the same fire. They were dull and ordinary. The students discussed the difference which was due to a high level of excitement that for many unified the papers. The author suggested that because of a successful first writing experience they were able to unify other papers and produce more quality work.

DISCUSSION

Wartenburg (1969, p. 19) adds to his definition of education with the statement that "this process of interaction results in desirable changes in pupils' behavior."

A "desirable change" is what all teachers strive for-- but is it a desirable change in terms of the teacher's goals or the student's goals? Rarely do I believe these goals are the same. However, audiovisual technology, when used to its fullest potential can begin to mesh these goals.

Motivation is an expansive term that can only be observed. Statistical data on the level of motivation achieved by a particular visual presentation may perhaps be measured on future instruments more sensitive than today's equipment.

Although the means to motivation is different for each person, there are many properties in common. The most important influence on motivation is seen by Dunn (1964, p. 207) as "the student's own appraisal of his ability to achieve goals that he considers worthwhile." Silas Marner of yesterday can not compare with the media ot today that is destined to expand into vocations and recreations of tomorrow. The student wants to be a part of this growing world. If the curriculum is dead, many students will drop out of school into a future equally lifeless.

Stanford and Dodd (1969) believe that to increase motivation, frustration must be lowered. Many students believe that they can never win the approval of the teacher so they prove it by failing. With audiovisual equipment

students compete only with themselves. Self-expression has no one right answer.

Courses which involve the student production of audio-visual materials, begin with a strong emphasis on the likelihood of success. The atmosphere is one of creativity which offers every student a chance to contribute to a class project or to receive instant feedback on an individual project.

For teachers who measure success by the quantity of facts that can be recited by a student, audiovisual technology will only be a toy to keep kids amused before a holiday. A televised lesson is not automatically a better lesson. No visual is better than a poorly planned or distracting visual.

Although much of the research presented in this paper does not prove that all audiovisual presentations are superior to oral or print presentations, it does indicate that when used properly audiovisual materials complement learning to at least make learning more enjoyable if not more effective. Audiovisual materials can provide a much needed variety in the classroom. The lack of statistical data available also shows a need for more research in this area.

FUTURE OF AUDIOVISUAL TECHNOLOGY

A "cartridge revolution" is predicted by Goldman and Burnett (1971, p. 60). They state that Twentieth Century-Fox has announced that all its films five years old or more will be released for conversion into cartridge format. McGraw-Hill and CBS are also looking into the billion dollar possibilities. In the near future, TV film cartridges will be available for home viewing on a loan basis from libraries.

Allen (1971, p. 4) cites a current thrust of federal and foundation research funding that will emphasize larger applied and developmental projects. Too much of research today, he claims, is based on expediency.

The use of computers to control multi-media devices will be instrumental in many schools, not just the larger schools as today. Daigon (1969) reports that a computer can present not only visual and sound stimuli to the individual student but can give directions, answer requests, and make assignments based on the student's communication with the machine. The computer can provide a background appropriate to each student's needs.

There is no end to the potential of audiovisual technology. The end comes when teachers become satisfied behind a closed door.

REFERENCES

- ALLEN, WILLIAM H. "Instructional Media Research; Past, Present, and Future." Audiovisual Communications Review 19: 5-18; Spring, 1971.
- ALLEN, WILLIAM H. "Readings in Educational Media Theory and Research; Vol. II. Final Report." Spons Ag-Office of Ed. (DHEW) Washington, D.C. Bureau of Research. Bureau No-B-236-A-2. Aug. 1968. Contract-OEC-3-16-021 Ed 031953.
- ARNEY, V. I. "Personalized Productions of 8mm Films Improve Student Motivation and Involvement." Journal of Learning Disabilities 1: 519-522; Sept., 1968.
- BALAZO, EUGENE E. "High School Journalism is Dead! Dead! Dead!" English Journal 59:1283-1284; Sept., 1970.
- BRANDON, LIANE. "Using Media Creatively in the English Classroom." English Journal 60:1231-1233; Dec., 1971.
- CABECEIRAS, JAMES. "Observed Differences in Teacher Verbal Behavior When Using and Not Using the Overhead Projector." Audiovisual Communication Review 20: ; Fall, 1972.
- CONRAD, JOSEPH. The Nigger of the Narcissus. New York: Doubleday, Doran and Co., 1930.
- DAIGON, ARTHUR. "Pictures, Punchcards, and Poetry." English Journal 58: 1033-7; Oct., 1969.
- DAVIS, ROBERT AND OTHERS. "Producer Puts More 'Hollywood' into Educational Films." College and University Business 46:58; May, 1969.
- DUNN, WILLIAM K. The Gifted Student. New York: Oxford University Press, 1964.
- DWYER, F. M. "Adapting Visual Illustrations for Effective Learning." in A Guide for Improving Visualized Instruction by F. M. Dwyer. Penn: Learning Services, 1972.
- DWYER, F. M. "An Analysis of the Instructional Effectiveness of Visual Illustrations presented Via Television" in A Guide for Improving Visualized Instruction by F. M. Dwyer. Penn: Learning Services, 1972.
- DWYER, F. M. "The Effect of Image Size on Visual Learning" in A Guide for Improving Visualized Instruction by F. M. Dwyer. Penn: Learning Services, 1972.
- DWYER, F. M. "The Effect of Questions on Visual Learning" in A Guide for Improving Visualized Instruction by F. M. Dwyer. Penn: Learning Services, 1972.

- DWYER, F. M. "Student Perceptions of the Instructional Effectiveness of Black and White and Colored Illustrations" in A Guide for Improving Visualized Instruction by F. M. Dwyer. Penn: Learning Services, 1972.
- ECKHARDT, NED. "Free-Wheeling with Media." Media and Methods 9:48; Jan., 1973.
- EVEROTE, WARREN. "Forty Years After the AV Revolution." Audiovisual Instructor 14:88; April, 1969.
- FELICIANO, GLORIA D. "Graphic Presentation." in "Readings in Educational Media Theory and Research; Vol. II. Final Report." William Allen, ed. Spons Ag-Office of Education (DHEW) Washington, D. C. Bureau of Research. Bureau no-B-236-A-2. Jan., 1968. Contract-OEC-3-16-o21. ED 031953.
- FITZPATRICK, VIRGINIA. "An AV Aid to Teaching Writing." English Journal 57:372-4; Mar., 1968.
- GALFO, ARNARD J. "Effects of Certain Audio and Visual Presentation Sequences on Pupil Information Acquisition." Journal of Educational Research 64: 172-8; Dec., 1970.
- GOLDMAN, FREDERICK AND BURNETT, LINDA. need johnny read? Ohio: Pflaum, 1971.
- GRAVES, MICHAEL F. "Fire-Writing." English Journal 61: 1941-2; October, 1972.
- HODGKINSON, ANTHONY W. "An Investigation into the Practice of Screen Education." Phase I, Summary. North Reading Public Schools, Mass. Jan. 1970, 76pp.
- HOUSER, RONALD L. AND ADRIAN, EILEEN HOUSER. "Learning a Motion and a Nonmotion Concept by Motion Picture Versus Slide Presentation." Audiovisual Communication Review 18: 425; Winter, 1970.
- KATZ, SHELDON F. "Turning the Kids on with Media." Audiovisual Instruction 14: 48-51; Oct., 1969.
- KEMP, JERROLD E. Planning and Producing Audiovisual Materials. Penn: Chandler Publishing Co., 1963.
- KUO, FRANK. "Creating Visuals for a Multi-Screen Presentation." Audiovisual Instructor 17:83-5; Sept. 1972.
- LACEY, RICHARD A. "Seeing with Feeling: Film in the Classroom." Media, and Methods 8: 53; Dec., 1972.
- MC LUHAN, MARSHALL. Understanding Media: The Extensions of Man. New York: McGraw-Hill Book Co., 1964.

AUDIOVISUAL TECHNOLOGY: MOTIVATOR OR ENTERTAINER?

by

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

**KANSAS STATE UNIVERSITY
Manhattan, Kansas**

1973

Audiovisual technology, when designed to aid the student in obtaining behavioral objectives in secondary language arts, can be beneficial to both the student and the teacher. However, when audiovisual materials are used by untrained personnel or exposed to unprepared students, these materials may hinder the learning experience.

The purpose of this study was to determine which type of audiovisual materials are most beneficial in various learning situations. This paper also provides practical classroom applications to the statistical data.

It was concluded that simple line drawings and guiding questions are more beneficial in learning experiences than many more complex photographs or graphs. In most situations, some form of audiovisual material when shown with an oral presentation was preferred to oral presentation only. The use of color in audiovisual materials was termed as preferred by the students but did not statistically improve comprehension over the materials presented. The manipulation of audiovisual materials may serve as a motivational tool for reluctant and remedial learners.